
LABORATORY
OF THE
INLAND REVENUE DEPARTMENT
OTTAWA, CANADA

BULLETIN No. 224

Tomato Catsup.

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OTTAWA, May 30, 1911.

W. J. GERALD, Esq.

Deputy Minister of Inland Revenue.

SIR,—In June and July of last year a collection of Tomato Catsup was made, ten samples being obtained in each of fifteen inspectoral districts.

The samples in question were all examined by my assistants and reported to me; but the records were believed to have been destroyed in the fire of 4th January last; which also destroyed the samples themselves.

The recovery of part of the reports on these samples of catsup makes it possible to hand you this fragmentary record; which possesses certain features of interest that may justify its publication.

In the cases of the following districts, the analytical records are totally lost, viz:—

	Samples.
Nova Scotia	10
Prince Edward Island.....	10
New Brunswick.....	8
Kingston.....	10
London.....	1
Manitoba.....	6
Vancouver.....	5
Victoria	10
Total lost	75

The present report, therefore, includes as follows:—

	Samples.
District of Quebec.....	10
" St. Hyacinthe.....	10
" Montreal	10
" Ottawa.....	10
" Toronto	10
" Windsor	10
" Manitoba.....	5
" Calgary.....	10
Total.....	75

Catsup is rather to be regarded as a condiment, i.e., a seasoning for food than as a food proper; for which reason a consideration of the total nutriment derivable from the article would be out of place. The value of a catsup is to be judged rather by its palatability, and its effectiveness as a stimulant to appetite, than by its nutritive quality.

If however, tomato catsup derive, in any degree, its value from the actual amount of fruit spices and other solid matters used in its production, there is room for astonishment at the great variability in dry solids found in the 75 samples now reported. The total solid matter varies from less than 5 per cent (No. 1349) to above 30 per cent. (Nos. 45089 and 43782) of the weight of the article. The mineral solids (chiefly salt) vary from 0.68 per cent to 3.82 per cent.

Bulletin No. 129 (Dec. 1906) contains a report upon 49 samples of tomato catsup, and in these a variation of from 7.44 p.c. to 29.04 p.c., was noted in total solids; while the mineral matter (ash) varied from 1.60 to 1.66 per cent. It is worthy of note that the highest ash is not found in those samples which give highest total solid matter.

Under the regulations made in conformity with the Pure Food Law of the United States, catsup is defined as "The clean, sound product, made from the properly prepared pulp of clean, sound, fresh, ripe tomatoes, with spices, and with or without sugar and vinegar."

This definition is very incomplete, inasmuch as it contains nothing quantitative. It would seem reasonable to insist upon a certain minimum amount of fruit, and perhaps of spices, in catsup. The definition quoted possesses, however, one important and valuable feature, in that it insists upon the pulp being clean and sound, and prepared from clean, sound, fresh and ripe fruit. Many convictions have been obtained against manufacturers whose catsup has been found mouldy, rotten or swarming with bacteria. (See notices of judgment 156, 388, &c.). But even here there is a difficulty, since an absolutely sterile catsup is practically impossible. It would seem well to fix upon a bacterial limit, beyond which the article would be illegal. Section 3 (e) of our Adulteration Act is quite as precise as the definition above quoted.

All of the 75 samples reported were found to be in good condition, and free from moulds or decay.

Three (3) samples contained salicylic acid as a preservative; forty-six (46) contained benzoic acid, and six (6) contained sulphurous acid or sulphites. These last were, of course, artificially coloured.

Coal tar dyes were found in 54 cases. There is no greater objection to harmless colouring matter in catsup than in candy. But a suspicion naturally arises that the colour may be used to conceal inferiority in the article, since it is well known that the use of fresh and ripe tomatoes renders a dye unnecessary; and in fact, some of the most attractively coloured samples herein reported were found to be free from dyes.

The question of fixing a standard for tomato catsup must receive consideration in due course; and a collection to supplement that herein reported, will be made as soon as work in hand permits.

This report is belated, for reasons already given. The work contained in it belongs to the fiscal year ending March 31, 1911.

I beg to recommend its publication as Bulletin 224.

I have the honour to be, sir,

Your obedient servant,

A. MCGILL,

Chief Analyst.

BULLETIN No. 224—TOMATO CATSUP.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Inspector's Report. (Is not an expression of opinion).	RESULTS OF ANALYSIS.						No. of Sample.
				Quantity.	Cents.		Total Solids.	Acidity stated as Acetic Acid.	Coal Tar Dyes.	Salicylic Acid.	Benzoic Acid.	Sulphurous Acid.	

DISTRICT OF QUEBEC—E. BELAND, INSPECTOR.

1910.	June 23	Tomato Catsup.	36423	Alexandre Marcoux, Beauport.	3	30	Quebec Preserving Co., Quebec.	p.c. 10.04	p.c. 2.88	p.c. 1.05	Pre-sent.	None.	36423
"	"	"	36424	Philias Parent, Beauport.	3	30	N. Turcotte & Cie, Quebec.	p.c. 5.50	p.c. 1.40	p.c. 0.87	"	None.	36424
"	"	"	36425	" " " "	3	30	J. B. Renaud & Cie, Quebec.	p.c. 14.44	p.c. 1.70	p.c. 0.74	"	Pre-sent.	36425
"	"	"	36426	" " " "	3	30	" " " "	p.c. 17.32	p.c. 1.56	p.c. 0.93	"	Pre-sent.	36426
"	"	"	36427	Alphonse Vachon, Beauport.	3	45	Unknown.	p.c. 13.44	p.c. 2.08	p.c. 0.90	"	None.	36427
"	"	"	36428	" " " "	3	60	" " " "	p.c. 18.30	p.c. 2.30	p.c. 0.93	"	Pre-sent.	36428
"	"	"	36429	Joseph Godreau, Beauport.	3	30	Quebec Preserving, Quebec.	p.c. 8.88	p.c. 1.34	p.c. 1.30	"	None.	36429
"	"	"	36430	Jule Belanger, Beauport.	3	30	N. Rioux & Cie, Quebec.	p.c. 14.24	p.c. 2.00	p.c. 0.74	"	Pre-sent.	36430
"	"	"	36431	Elie Noël, Beauport.	3	45	J. B. Renaud & Cie, Quebec.	p.c. 15.40	p.c. 1.70	p.c. 0.90	"	None.	36431
"	"	"	36432	Narcisse Fortier, Beauport.	3	30	N. Rioux & Cie, Quebec.	p.c. 14.00	p.c. 1.64	p.c. 0.68	"	"	36432

DISTRICT OF ST. HYACINTHE—J. C. ROULEAU, INSPECTOR.

June 23	Tomato Catsup.	1349	J. Chartier, St. Jean.	3	45	J. A. Poirault & Cie, Montreal.	p.c. 4.80	p.c. 1.90	p.c. 1.24	Pre-sent.	None.	1349
"	"	1350	H. F. Barlow, Magog.	3	35	The Aylmer Canning Co., Aylmer, Ont.	p.c. 12.54	p.c. 1.74	p.c. 0.90	Pre-sent.	None.	1350

" 24	"	1351	Ed. Lacroix, Coats-3 cook.	60	Grantham Canning Co., St. Catharines.	29.46	3.14	1.12	"	None.	"	1351
" 27	"	1352	J. V. Fagnan, 3 Sorel.	45	Griffith Catsup Co., Dunn- ville.	8.60	1.70	0.50	"	"	"	1352
" 28	"	1353	E. Nouri, St. Gre- goire de Nicolet.	39	The Ozo Co., Ltd., Mon- treal.	14.16	2.46	1.49	None.	"	"	1353
" 29	"	1354	Oct. Petit, Vic- toriaville.	30	Jos. Lanouette & Cie, Montreal.	7.26	1.92	1.11	Pre- sent.	"	"	1354
" 30	"	1355	J. A. Rousseau, 3 Plessisville.	30	The Ozo Co., Ltd., Mon- treal.	15.66	3.20	0.68	"	None.	"	1355
July 11	"	1356	J. V. La voie, 3 Theftford Mines West.	30	Quebec Preserving Co., Quebec.	8.88	1.90	0.62	"	"	"	1356
" 12	"	1357	E. M. Jacques, 3 Garthby.	50	Sugars & Canners Ltd., Montreal.	19.54	1.44	1.24	"	"	"	1357
" 19	"	1358	J. S. Richard, St. 3 Denis River, Rich.	30	H. Bourque & Fils, Mon- treal.	14.64	1.34	1.36	None.	"	None.	1358

DISTRICT OF MONTREAL—J. J. COSTIGAN, INSPECTOR.

June 17	Tomato Catsup.	39947	A. Rochon, 45 3 Bots Prince Arthur E., Montreal.	30	H. Bourque & Fils, Mon- treal.	13.52	1.46	1.36	None.	None.	None.	39947
" 17	"	39948	T. Gougeon, 368 3 Dorchester W., Montreal.	30	"Canada first" Brand.	13.40	3.00	1.01	Pre- sent.	"	"	39948
" 18	"	39949	W. Randfont & 3 Sons, Lachute, P.Q.	45	"Empress" Brand.	10.56	1.30	1.30	"	"	"	39949
" 20	"	39950	D. Hetu, St. Agathe 3 de Monts.	35	"Puritan" Brand.	11.28	1.42	0.80	"	"	"	39950
" 21	"	39951	L. V. Giraldeau, 3 Rigaud, P.Q.	45	"Signal" Brand.	20.80	3.40	1.30	"	"	"	39951
" 21	"	39952	Chevrier et frere, 3 Rigaud, P.Q.	45	W. Lorain, Bord à Plouffe, P.Q.	10.14	3.62	1.05	"	Pre- sent.	"	39952
July 5	"	39953	E. P. Dume, 312 3 Beau St., Mon- treal.	45	Griffith Catsup Co., Dunn- ville, Ont.	15.14	3.50	1.74	"	"	"	39953
" 5	"	39954	E. Perron, St. Lau- rent, P.Q.	30	"Oval Brand"	17.28	2.09	0.99	"	"	"	39954
" 5	"	39955	" " " " "	15	"Sunex Brand"	14.48	1.34	1.19	None.	"	None.	39955
" 5	"	39956	M. Viger, Lau- guel.	75	T. A. Seider Preserve Co., Cincinnati, Ohio	19.20	1.90	0.99	"	Pre- sent.	"	39956

BULLETIN No. 224—TOMATO CATSUP.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Inspector's Report. (Is not an expression of opinion.)	RESULTS OF ANALYSIS.						No. of Sample.
				Quantity.	Cents.		Total Solids.	Total Ash.	Acidity stated as	Coal Tar Dyes.	Salicylic Acid.	Benzoic Acid.	Sulphurous Acid.

DISTRICT OF OTTAWA—J. A. RICKEY—INSPECTOR.

1910.	June 15	Tomato Catsup.	43046 D. A. Younghus, 3 Bots band, Elgin St., Ottawa.	30	Canada Preserving Co., Ltd., Hamilton.	"Graham's Lily" Brand.	20.14	2.28	1.48	Pre- sent.	None.	Pre- sent.	None.	43046
"	20	"	43047 J. F. Burrows, 3 " O'Connor St., Ottawa.	50	H. N. Bate & Sons, Ottawa.	Mfg. by T. A. Lytle Co., Ltd., Toronto.	13.04	2.00	1.34	"	"	None.	Pre- sent.	43047
"	20	"	43048 S. W. Lee, Elgin 3 " St., Ottawa.	75	"	Snider's Home made catsup mfd. by T. A. Lytle Co., Snider Co., Cincinnati, Ohio, not arti- ficially colored.	20.04	3.20	1.12	None.	"	"	None.	43048
"	20	"	43049 E. W. Richardson, 3 " Elgin St., Ottawa.	30	The Turner Co., Ltd., Toronto.	"Turner Brand."	19.78	1.84	0.62	Pre- sent.	"	Pre- sent.	"	43049
"	21	"	43050 Alex. Phillips, Som. 3 " ereset St., Ottawa.	30	The T. A. Lytle Co., Ltd., Toronto.	"Canada Brand"	18.36	1.80	0.81	"	"	None.	Pre- sent.	43050
"	22	"	43051 Leacy & Shields, 3 " Pembroke.	35	H. N. Bate & Sons, Ottawa.	"Graham's Lily" Brand mfd. by Canada Preser- ving Co., Ham- ilton.	18.70	1.00	1.73	None.	"	Pre- sent.	Pre- None.	43051
"	22	"	43052 Fenton & Smith, 3 " Pembroke.	75	Gorman, Eckert & Co., London, Ont.	"Forest City" Brand Home made Co. up	16.70	3.26	1.00	Pre- sent.	"	"	"	43052

"	"	"	43032	Fenton & Smith, 3 "	75	Gorman, Eckert & Co., "Forest City" Brand Home made Catup.	16.70	3.26	1.00	Pre- sent.	"	"	43032
"	22	"	"	"	"	"	"	"	"	"	"	"	"

"	"	"	43033	Mullin Bros., Mor-3 "	45	Wm. Galarath & Son, Montreal.	13.94	1.80	0.80	"	"	Pre- sent.	43033
July	4	"	43034	Geo. O. Elder, Mary 3 "	45	Unknown	11.72	2.24	1.86	"	"	None.	43034
"	11	"	43035	Wm. Rhodes, 3 "	30	Gilmour & Co., Brockville.	13.00	2.29	0.87	"	"	"	43035

DISTRICT OF TORONTO—H. J. DAGER—INSPECTOR.

June	16	Tomato Catup.	45037	A. Harris & Uxbridge.	30	The Aylmer Canning Co., Aylmer, Ont.	12.52	2.20	0.50	Pre- sent.	None.	Pre- sent.	45037
"	18	"	45038	Geo. O. Elder, Mary 3 "	30	Burlington Canning Co., Burlington.	18.18	1.80	0.79	None.	"	"	45038
"	21	"	45039	James Kennedy, 3 "	45	H. J. Heinz Co., Pitts- burgh, Pa.	32.20	2.24	1.79	"	None.	"	45039
"	23	"	45040	John Cheesman, 3 "	30	Jno. Sloan & Co., Toronto.	12.46	1.65	1.65	Pre- sent.	"	Pre- sent.	45040
"	29	"	45041	Ward & Co., Ger- rand St. E., To- ronto.	30	Ingersoll Canning & Pre- serving Co., Ingersoll.	5.30	0.76	0.79	None.	"	"	45041
"	29	"	45042	R. J. Povitz, Dun- das St. W., To- ronto.	45	Green & Co., Toronto.	5.84	1.86	2.23	"	"	"	45042
"	30	"	45043	C. H. Crysdale, 3 "	30	Napanee Canning Co., Ltd., Napanee.	16.02	1.08	0.68	Pre- sent.	"	"	45043
July	4	"	45045	Thomas Haywood, 3 "	30	The Mesford Canning Co., Mesford, Ont.	6.32	1.90	0.86	"	"	"	45045
"	5	"	45046	Thos. Fielding, 3 "	45	The T. A. Lytle Co., Ltd., Toronto.	17.40	1.75	1.18	"	"	Pre- sent.	45046
"	5	"	45047	J. D. Cummings, 3 "	45	The North Land Mfg. Co., Toronto.	16.44	1.44	1.18	"	"	Non- sent.	45047

DISTRICT OF WINDSOR—JNO. TALBOT, INSPECTOR.

June	20	Tomato Catup.	42322	A. H. Scarff & Co., 3 Bots Essex.	35	Wm. Davies & Co., Tor- onto.	16.34	2.28	1.96	Pre- sent.	None.	None.	42322
"	20	"	42323	Thos. A. Kennedy, 3 "	45	T. A. Lytle Co., Toronto.	19.16	2.28	0.90	"	"	Pre- sent.	42323

8

DISTRICT OF MANITOBA—A. C. LARIVIERE, INSPECTOR.

July 11	Tomato Catsup.	33898	J. Łezak, Logan Ave., Winnipeg.	3 bota.	45	Blackwood Ltd., Winnipeg	16-86	3-36	1-49	None.	None.	33898
June 22	"	43501	S. G. Prebble, Notre Dame Ave., Winnipeg.	3 "	45	The T. A. Lytle Co., Ltd., Toronto.	43501

July 11	Tomato Catsup.	33898 J. Lezack, Logan, 3 bota.	45	Blackwood Ltd., Winnipeg	Blackwood Cat- sup.	16-86	3-36	1-49	None.	Pre- sent.	None.	33898
June 22	"	43501 S. G. Prebble, 3 Notre Dame Ave., Winnipeg.	45	The T. A. Lytle Co., Ltd., Toronto.	Sterling Brand.							43501
" 23	"	43502 Collins & Munro, 3 pkgs Miami.	45	The Meaford Canning Co., Meaford, Ont.	Vernon Tomato Catsup.							43502
" 27	"	43503 G. T. Hoyes, Elm-3 bota. wood.	45	The Dyson Co., Winnipeg.	Dyson Red Cross Brand.							43503
" 27	"	43504 J. H. McGrath, 3 "	45	T. A. Lytle, Ltd., Toronto	Sterling Brand							43504
" 28	"	43505 J. Paterson, Port-3 " age Ave., Win	75	T. A. Snider Preserve Co., Cincinnati, Ohio.								43505
" 29	"	43506 Paschov & Zearoin, 3 " Wetson.	45	Blackwood, Ltd., Winnipeg								43506
July 6	"	43507 Gregory & Co., St. 3 " James.	45	The Tilbury Canning Co., Ltd., Tilbury Ont.		11-36	2-40	0-93	Pre- sent.	None.	Non-3.	43507
" 7	"	43508 A. Higgins, Elgin, 3 "	75	The Dyson Co., Winnipeg	Red Cross Tom- ato Catsup.	12-14	3-34	1-24	"	"	"	43508
" 8	"	43509 Ross & Cunningham, 3 " ham, Elgin, Man.	75	Delhi Canning Co., Delhi, Ont.	Epicure Brand.	19-36	2-12	0-72	None.	"	"	43509
" 11	"	43510 W. A. Wales, 3 " Nena St., Win- nipeg	75	Van Camp Packing Co., Indianapolis, U.S.		26-00	3-60	1-92	"	"	"	43510

5574-2

DISTRICT OF CALGARY—R. W. FLETCHER—INSPECTOR.

July 5	Tomato Catsup.	43781 Craddock & Viner, 3 Tins Lethbridge.	40	Delhi Fruit & Vegetable Canning Co., Delhi, Ont.		21-66	2-00	0-83	None.	Pre- sent.	None.	43781
" 5	"	43782 Hudson Bay Co., 3 Bots Lethbridge.	1 00	Heinz, Pittsburg, Pa.		30-70	2-60	1-86	"	None.	"	43782
" 13	"	43783 R. Dunn, Medicine 3 " Hat.	60	Gorman, Eckert & Co., Ltd., London, Ont.		15-70	1-90	1-55	Pre- sent.	"	"	43783
" 13	"	43784 The D. Milne Co., 3 " Lethbridge, Medicine Hat.	1 00	Curtice Bros., Rochester, N.Y.		18-25	3-56	0-87	None.	"	"	43784
" 22	"	43785 W. H. Hayes, Cal-3 " gary.	75	Aylmer Canning Co., Ayl- mer, Ont.		16-26	3-00	1-12	Pre- sent.	"	"	43785
" 22	"	43786 E. A. Rosser, Cal-3 Tins gary.	40	"		8-78	2-68	1-55	"	"	"	43786
Aug. 8	"	43787 C. E. Compton, 3 Bots Wetaskiwin.	90	T. A. Snider Co., Cincin- nati, Ohio.		21-90	2-28	1-18	None.	None.	"	43787
" 8	"	43788 Thibaudan Trad-3 " ing Co., Wetaski- win.	1 05	Van Camp Packing Co., Indianapolis, Ind.		26-06	3-66	1-80	"	Pre- sent.	"	43788
Aug. 9	"	43789 Douglas Bros., 3 Bots Lethbridge.	45	Gorman, Eckert & Co., London, Ont.		15-22	2-52	0-99	Pre- sent.	None.	None.	43789
" 10	"	43790 A. Livingston, 3 " Edmonton.	75	Van Camp Packing Co., Indianapolis, Ind.		26-10	3-10	1-92	None.	"	"	43790